

MARCH 4, 2021



Virtual R&D Update

Forward-Looking Statements

To the extent that statements contained in this presentation are not descriptions of historical facts, they may be deemed to be forward-looking statements under the Private Securities Litigation Reform Act of 1995. Words such as “may,” “will,” “expect,” “anticipate,” “estimate,” “intend,” “next,” “near-term,” “future” and similar expressions, as well as other words and expressions referencing future events, conditions, or circumstances, are intended to identify forward-looking statements. Examples of forward-looking statements in this presentation may include, among others, statements regarding: (i) the timing, progress and results of our preclinical and clinical trials; (ii) the evaluation of biomarkers; (iii) the impact of the COVID-19 pandemic on the initiation, progress or expected timing of those trials and the timing of related data, as well as our efforts to adjust trial-related activities to address the impact of the COVID-19 pandemic; (iv) the timing or likelihood of regulatory filings for our product candidates; (v) our manufacturing capabilities and strategy; (vi) the potential benefits and activity of our product candidates; (vii) our expectations regarding the nature of the biological pathways we are studying; (viii) our expectations regarding our FIND-IO platform; and (ix) the potential benefits of our relationships with Dr. Lieping Chen and Yale University.

Various factors could cause actual results to differ materially from those projected in any forward-looking statement. Such risks and uncertainties include, among others: the impact of the ongoing COVID-19 pandemic on our business, including our clinical trials, third parties on which we rely and our operations; our limited operating history and no products approved for commercial sale; our history of significant losses; our need to obtain additional financing; risks related to clinical development, marketing approval and commercialization; and the unproven approach to the discovery and development of product candidates based on our FIND-IO platform. No forward-looking statement is a guarantee of future results or events, and one should avoid placing undue reliance on such statements. For further discussion of these and other factors that could affect the outcome of our forward-looking statements, see our filings with the Securities and Exchange Commission, including in “Risk Factors” and “Special Note Regarding Forward-Looking Statements” in the Risk Factors section and throughout NextCure’s Form 10-K filed with the SEC on March 4, 2021. Except as otherwise indicated, this presentation speaks as of the date indicated herein. Except as required by law, we assume no obligation to update any forward-looking statements, or to update the reasons why actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future. The information in this presentation is not complete and may be changed.

Agenda

- Introduction
- New Chief Medical Officer
- NC318 and NC410 Updates
- NC762 Program Introduction

NextCure Highlights

FIND-IO Discovery

- Functional screening engine
- Validating novel cancer targets
- New MOAs

Team

- Fully integrated
- Experienced management
- Immunology expertise

3 INDs in 5 Years

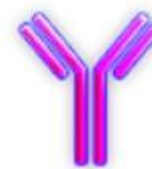
NC318
(S15)



NC410
(LAIR-1)



NC762
(B7-H4)



Clinical

- Patient responses
- Patient selection
- Biomarkers

GMP Manufacturing

- Dedicated, state-of-the-art
- Expanded capacity (2,000L)

Cash (Runway): \$283.4M (2H 2023)

Product Development Pipeline

PROGRAMS	CELLS	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	NEXT MILESTONE	WORLDWIDE RIGHTS
PRODUCT CANDIDATES								
NC318 (S15) Monotherapy	Tumors and macrophages	ONCOLOGY					Report update 4Q 2021	NextCure
NC318 (S15) Anti-PD-1 Combo*	Tumors and macrophages	ONCOLOGY					Start Phase 2 2Q 2021	NextCure
NC410 (LAIR-1)	Dendritic and T cells	ONCOLOGY					Initial data 2H 2021	NextCure
NC762 (B7-H4)	Tumors	ONCOLOGY					Start Phase 1 2Q 2021	NextCure
DISCOVERY AND RESEARCH PROGRAMS								
Multiple Programs	Multiple cell types						IND filing in 2022	NextCure

*Investigator-initiated (IIT) trial (Yale University)

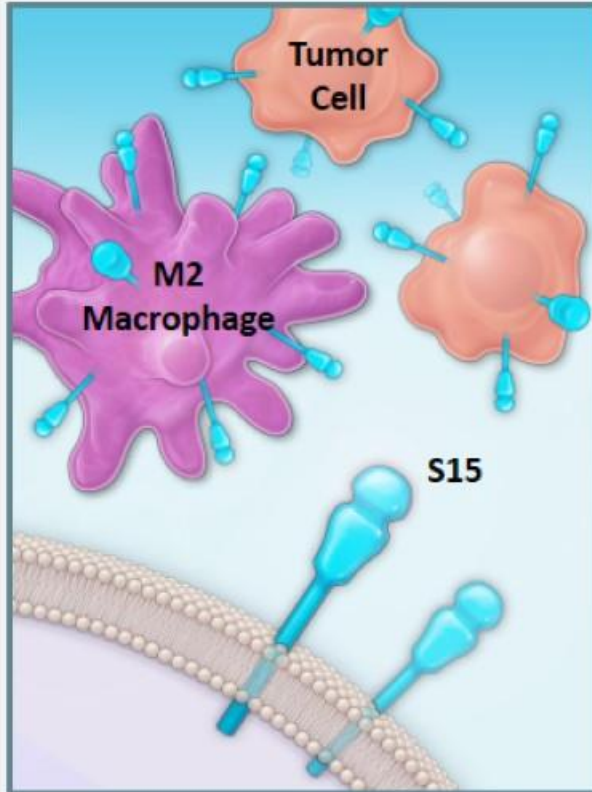
Chief Medical Officer Introduction

- Over 20 years of experience both in academia and biopharma
- VP Global Medical Affairs and Myeloid Disease Lead at Celgene
- Contributed to several regulatory approvals in the US (enasidenib, fedratinib and luspatercept) and globally (azacitidine) at Celgene
- Academic background in oncology at multiple institutions in the UK and US, including King's College London, Rush University Medical Center and University of Colorado Denver

S15 as a Target

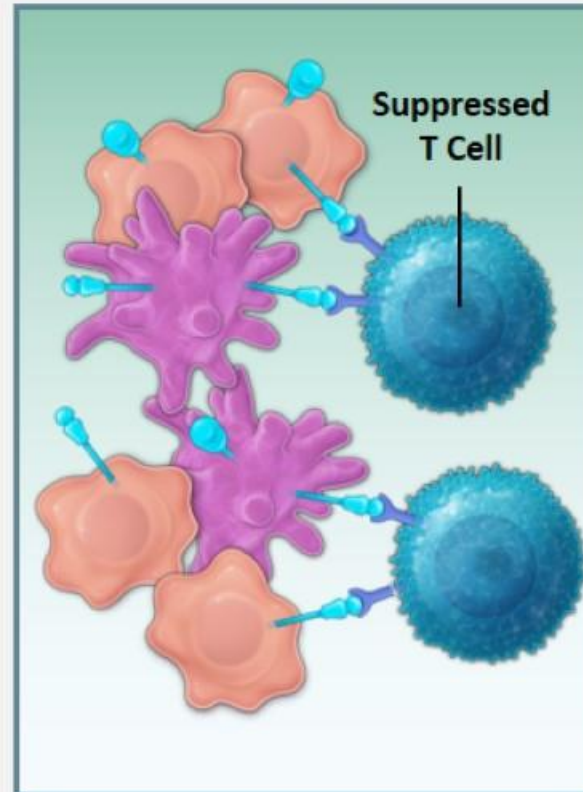
EXPRESSION

Tumors and
Macrophages



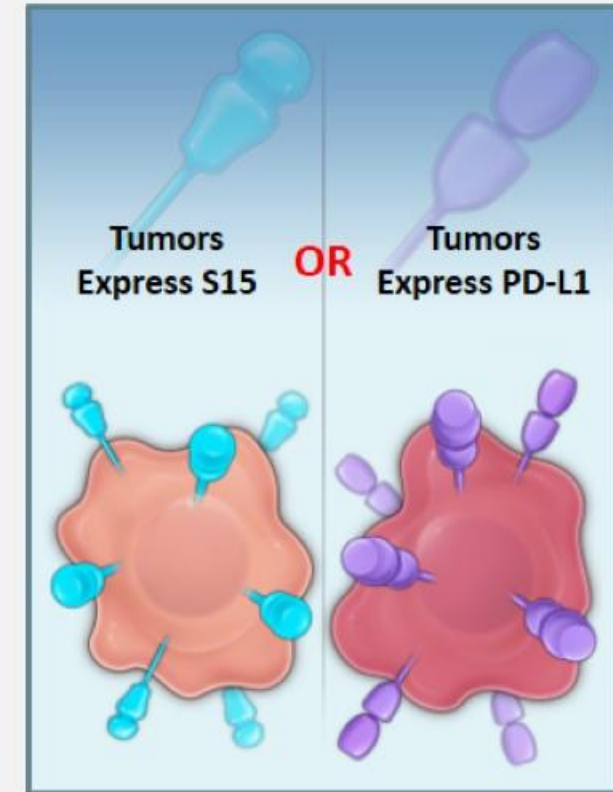
FUNCTION

Potently Suppresses
T Cell Function



NON-RESPONDERS

Generally Non-Overlapping
with PD-L1 Expression



Wang et al.,
2019

nature
medicine

ARTICLES

<https://doi.org/10.1038/s41591-019-0374-x>

Siglec-15 as an immune suppressor and potential
target for normalization cancer immunotherapy

NC318 Clinical Update

MONOTHERAPY

- Patient update
- S15 patient selection (2Q 2021)

YALE COLLABORATION

- NSCLC
- Monotherapy (PD-1 failures)
- Combination with pembrolizumab
 - PD-1 failures
 - PD-1 naive

NC318 Phase 2 Monotherapy Trial Status as of March 4, 2021

TUMOR TYPES

NSCLC

Ovarian

H&N

TNBC

DESIGN

- Monotherapy
- 400 mg every 2 weeks
- Biopsies required
- Biomarker evaluation

UPDATE

- Confirmed PRs
 - H&N (40 weeks)
 - TNBC (21+ weeks)
- S15+ patient selection (2Q 2021)

Partial Responses in Head & Neck and Triple-Negative Breast Cancer

HEAD & NECK SQUAMOUS CELL CARCINOMA

BASELINE



WEEK 24



Target lesion decreased 37%

53 y/o HNSCC with
multiple lesions
(PD-L1 TPS <50%)
400 mg every 2 weeks

PRIOR THERAPIES:
Chemotherapy (3x)
Radiation (3x)
Nivo, Pembro (<3 mo to
progression)

TRIPLE-NEGATIVE BREAST CANCER

BASELINE



WEEK 8



Target lesion decreased 82%

67 y/o TNBC
(PD-L1 TPS <1%)
400 mg every 2 weeks

PRIOR THERAPIES:
Chemotherapy (3x)
Radiation (1x)
Pembro (best response
stable disease then
progression)

Yale Investigator-Initiated Phase 2 Trial in Non-Small Cell Lung Cancer

PRINCIPLE INVESTIGATORS

- Roy Herbst, MD, PhD
- Scott Gettinger, MD

MONO

- S15+ patients
- PD-1 failure

COMBO

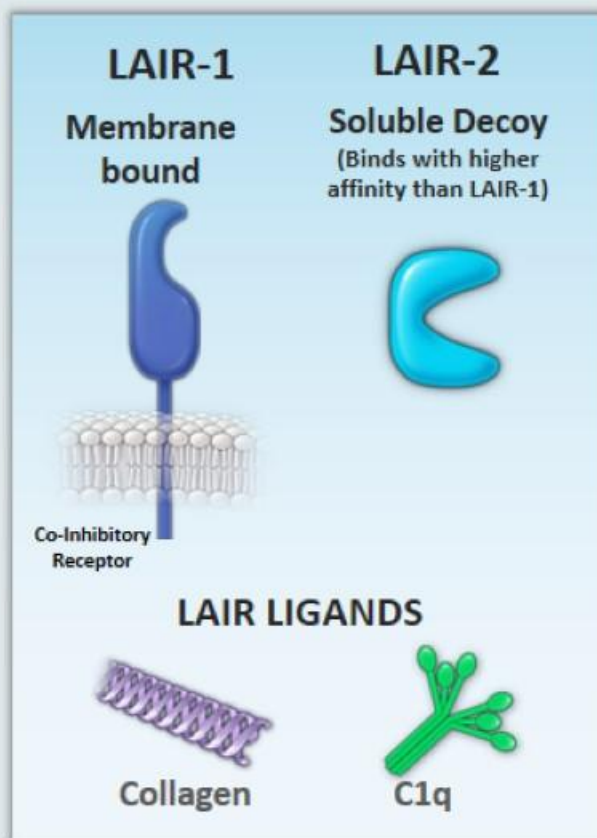
- Pembrolizumab
- 2 arms
 - PD-1 failure
 - PD-1 naïve

NCT04699123

LAIR-1 & LAIR-2 Functional Relationship

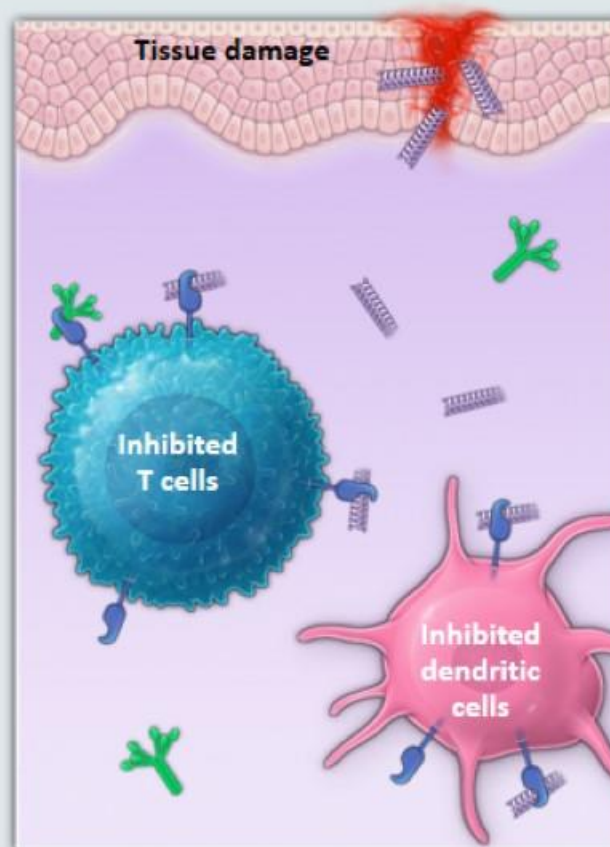
LAIR & LIGANDS

LAIR-1 and LAIR-2 Bind
Collagen and C1q



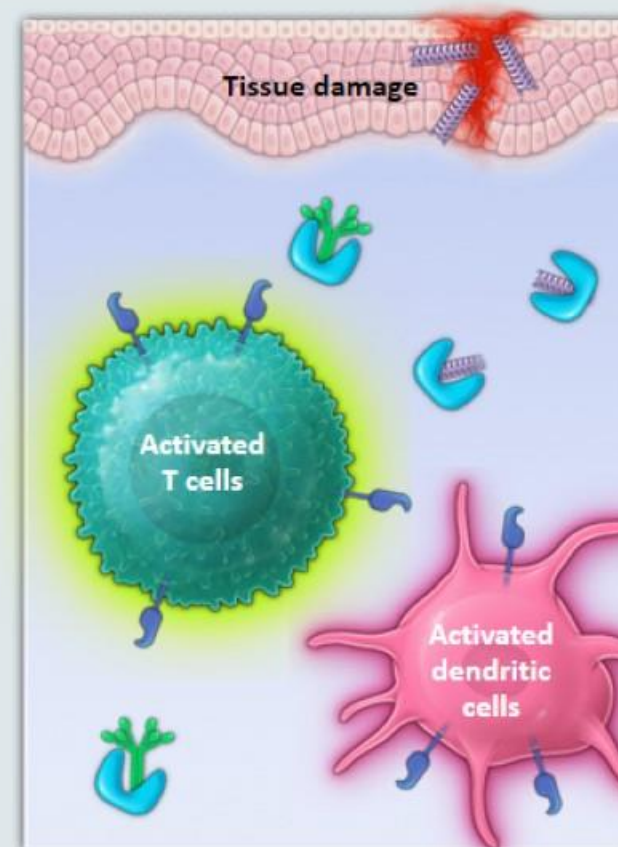
LAIR-1

Ligands Expressed in Response to
Inflammation & Inhibit Immune Function



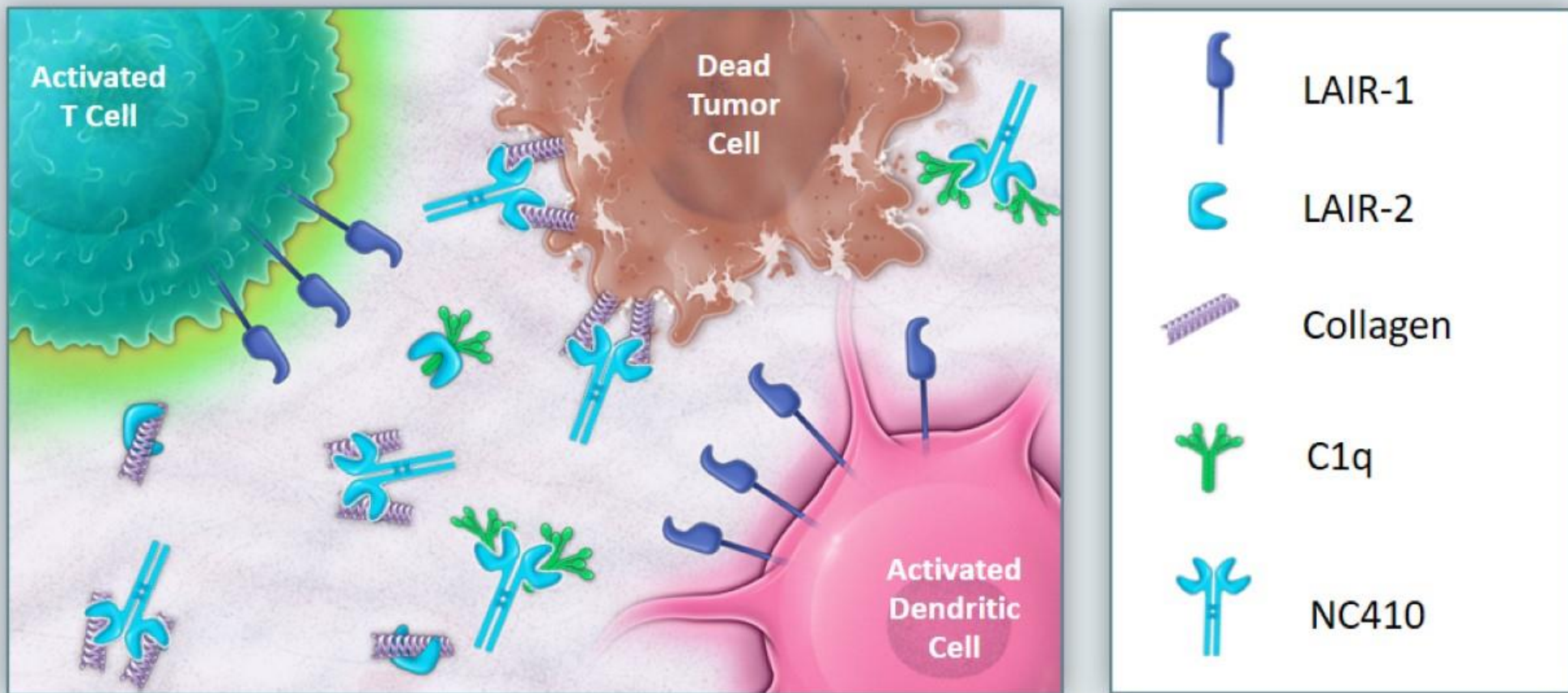
LAIR-2

LAIR-2 Modulates LAIR-1
Mediated Inhibition



NC410 Prevents Immune Suppression

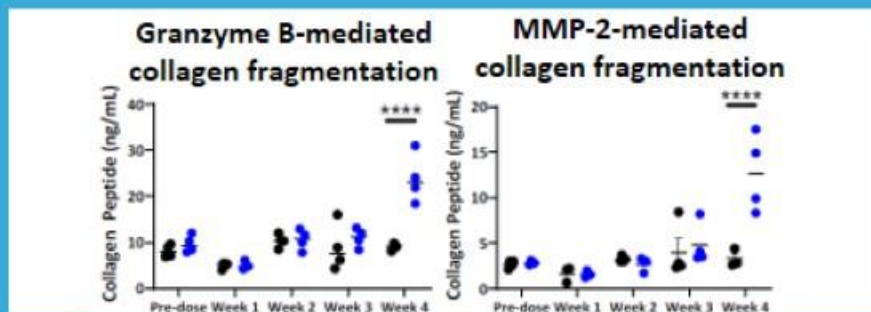
NC410 IS A FUSION PROTEIN OF LAIR-2 AND A DECOY FOR LAIR-1 AND PROMOTES T CELL FUNCTION AND DC ACTIVATION



NC410 Restores Immune Function

TARGETS

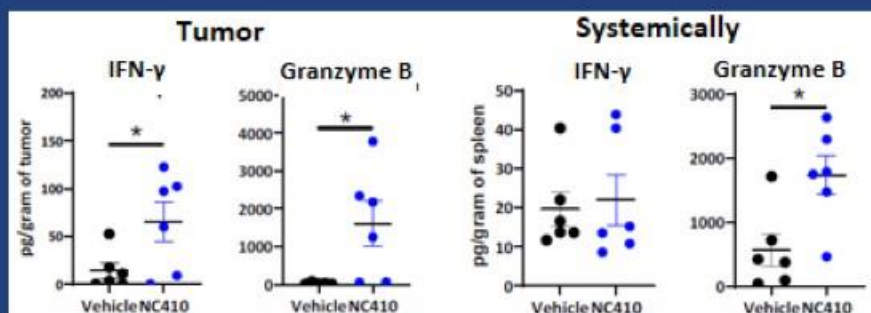
Extracellular Matrix



ECM remodeling

PROMOTES

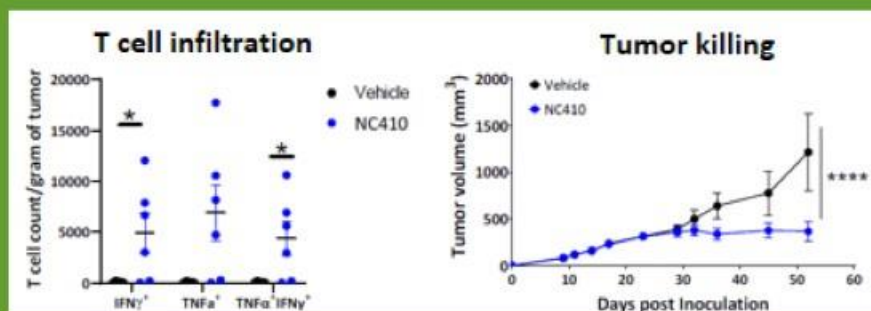
Anti-Tumor Immunity



Local and systemic immune activity

ENABLES

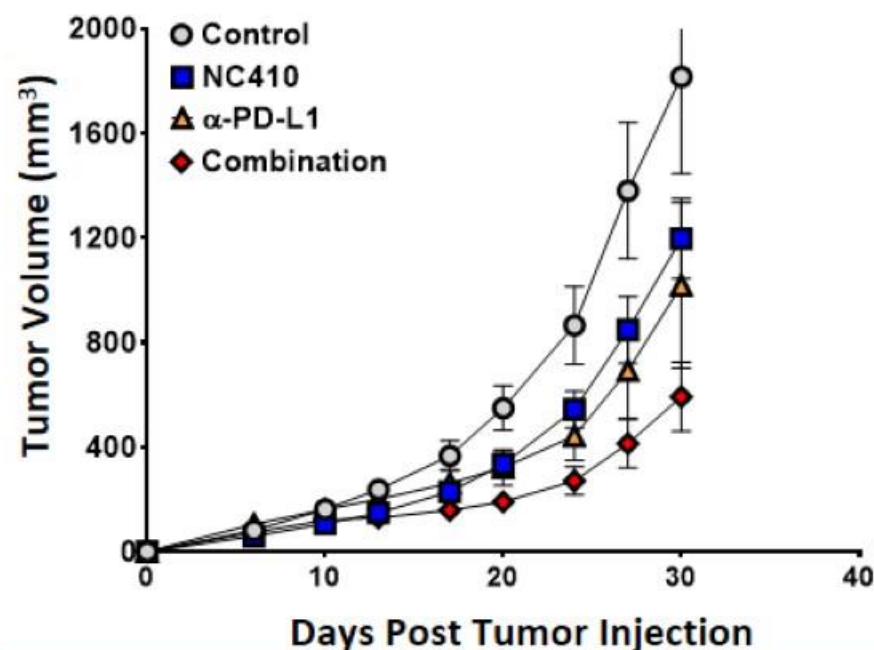
Immune Normalization



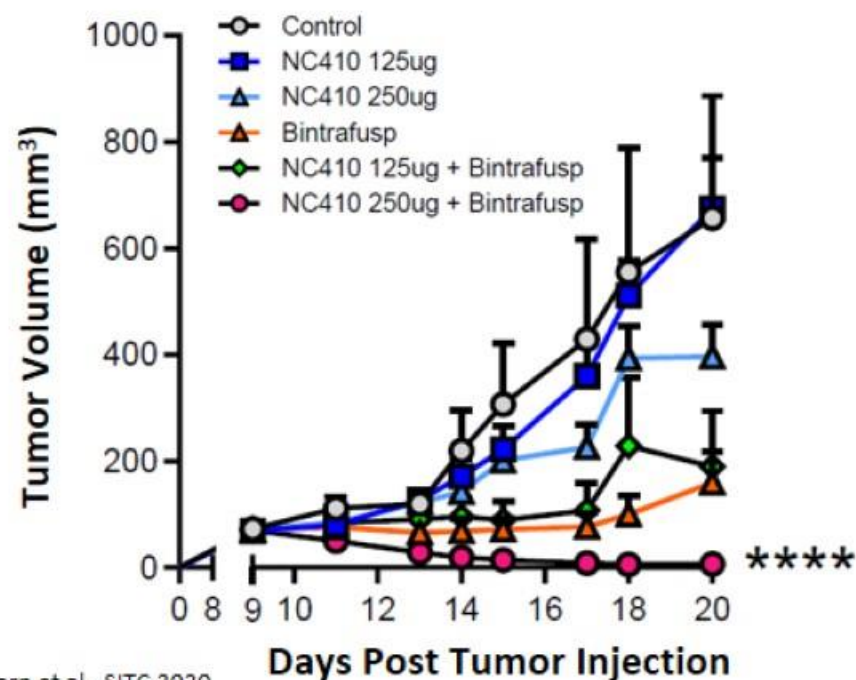
Enhances T cell infiltration and tumor killing

NC410 Demonstrates Synergistic Activity in Preclinical Models

PD-L1



BINTRAFUSP ALPHA



Horn et al., SITC 2020

NC410 Phase 1 Portion of Phase 1/2 First-in-Human Trial

DESIGN

- Dose-escalation
- Safety & tolerability

TUMOR TYPES

- Advanced or metastatic solid tumors
- NSCLC
 - Ovarian cancer
 - Pancreatic cancer

DELIVERABLES

Initial Phase 1 data
2H 2021



NATIONAL CANCER INSTITUTE
Center for Cancer Research



John Theurer
Cancer Center
at Hackensack University Medical Center

THE UNIVERSITY OF TEXAS

MDAnderson
~~Cancer~~ Center

NC762

Humanized B7-H4 Monoclonal Antibody

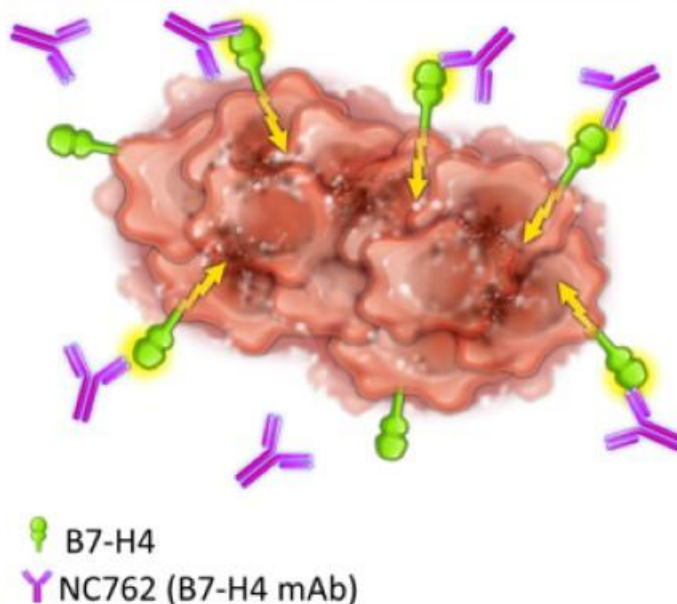


Phase 1/2
CLINICAL
TRIAL

BIOLOGY

- NC762 inhibits tumor cell growth and is not dependent on T cells
- NK cells enhance anti-tumor activity
- B7-H4+ tumors
 - NSCLC
 - Breast cancer
 - Ovarian cancer

MOA



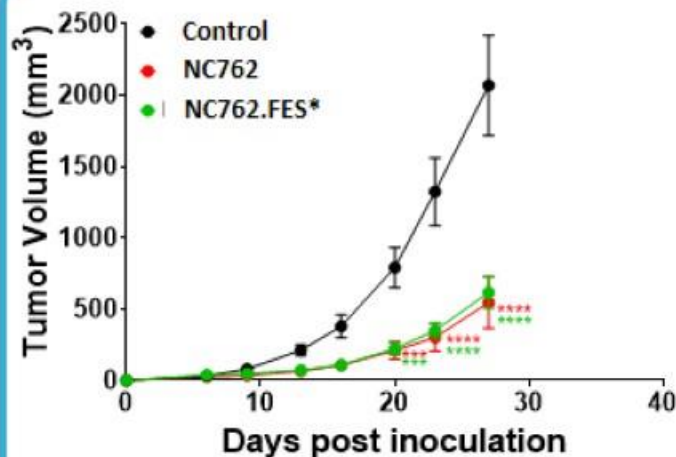
UPDATE

- IND filed
- Unique mechanism of action
- IHC assay for patient selection
- Biomarkers
- Phase 1 2Q 2021

NC762 Inhibits Human Melanoma Tumor Growth *In Vivo*

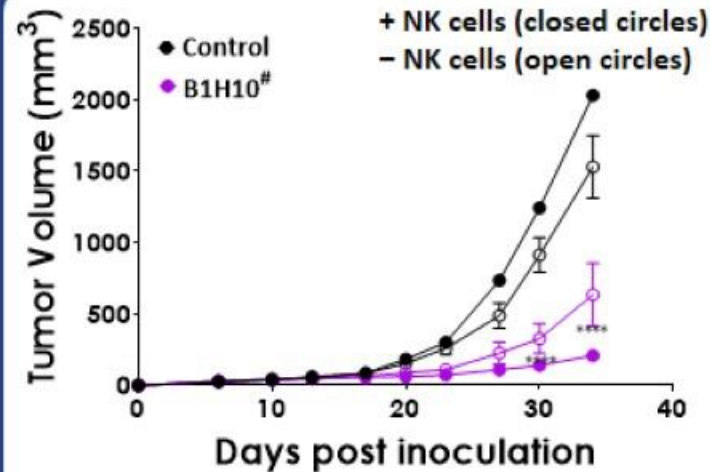
Activity Enhanced by Human PBMCs

TUMOR INHIBITION



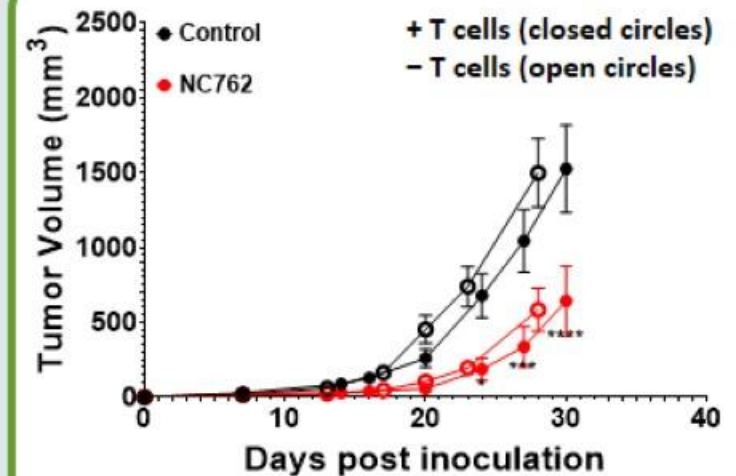
*Designed to reduce FcγR binding/restrict ADCC activity

NKs ENHANCE ACTIVITY



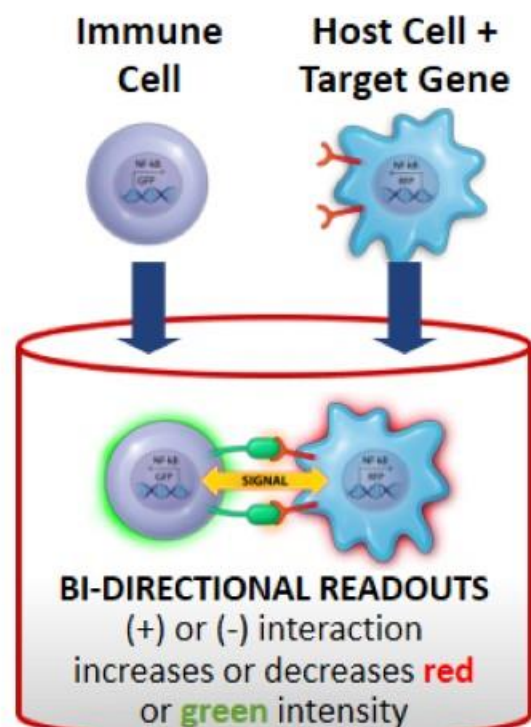
#Parent of NC762

T CELLS NOT REQUIRED

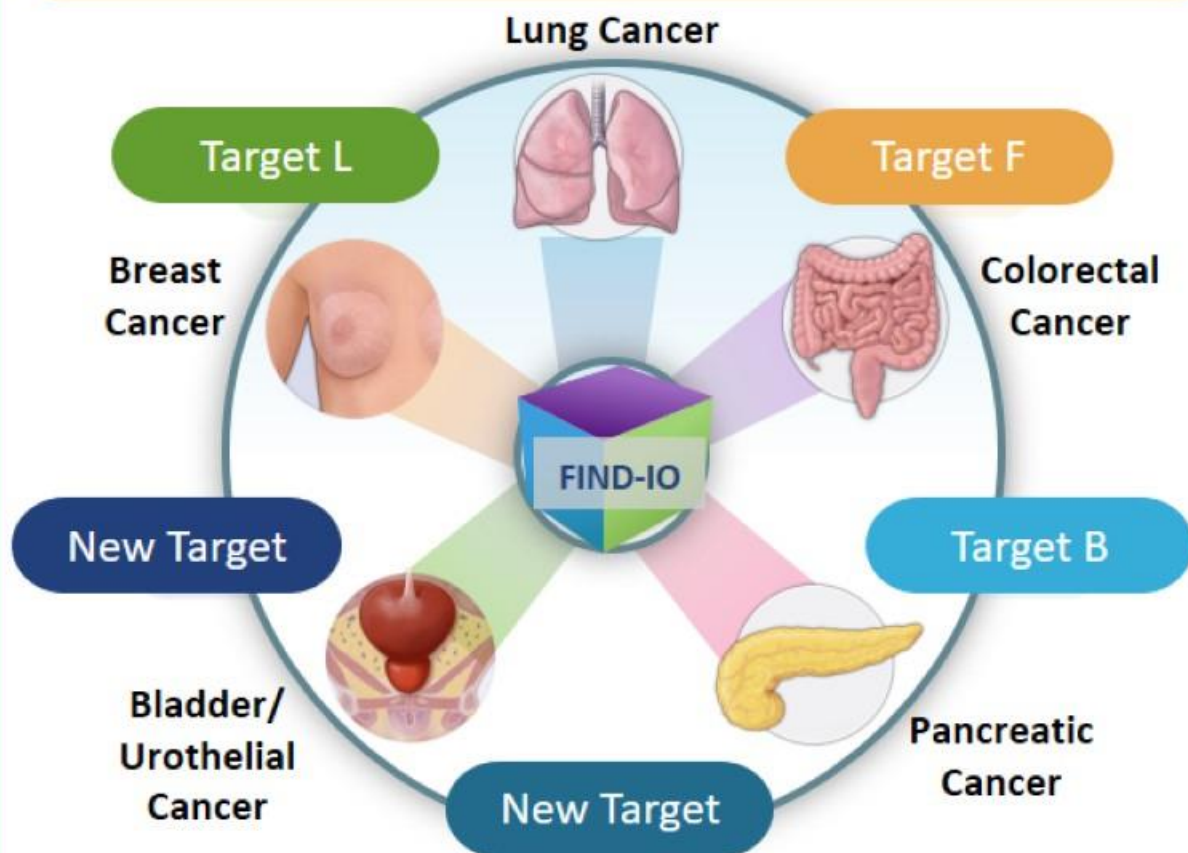


Versatile, Flexible and Comprehensive Approach for Product Development

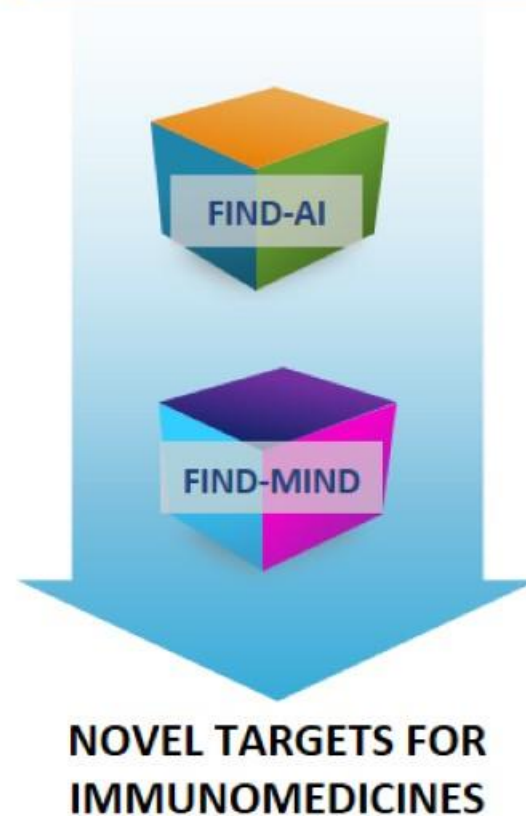
FUNCTIONAL READOUTS



FUTURE PIPELINE



DIVERSIFICATION



Anticipated Near-Term Milestones

Cash Position: \$283.4M Runway: 2H 2023

PROGRAMS	2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PRODUCT CANDIDATES								
NC318 (S15) Monotherapy				Phase 2 update				
NC318 (S15) Anti-PD-1 Combo*		Start Phase 2			Anticipate initial data			
NC410 (LAIR-1)				Initial data				
NC762 (B7-H4)		Start Phase 1				Initial data		

*Investigator-initiated (IIT) trial (Yale University)



Q&A